

March 29, 1960

Mr. George A. Derbyshire
Space Science Board
1145 19th Street N.W.
Washington 6, D. C.

Dear George:

Concerning the functions and objectives of the Biology Committee

Keffer will doubtless be replying to Peavey's letter with regard to the biology picture as a whole, and in fact, you have our summary of the last meeting with specific recommendations along the lines requested in his letter.

With particular reference to exobiology:

1) Principle functions and objectives. To insure the continued development and realization of a sound program for the investigation of the development of life beyond the earth.

2) To discourage trivial and sensationalized projects which may have negligible scientific value but may be forwarded under the color of scientific investigation.

3) To maintain a constant critical review of scientific objectives in exobiology and of the methodology for achieving them.

4) To evaluate the possible hazards resulting from the inter-planetary transport of biological material.

5) To inform ourselves and our colleagues of the possibilities of exobiological research and to encourage imaginative thinking and experimental execution of relevant programs.

6) To further discussion at a scientific level among American, USSR, and other biologists of their over-all scientific objectives and methods.

7) To press within our own Administration for continued attention to the needs of exobiological research in proportion to their long-range

significance notwithstanding the current novelty and conceptual difficulty of this discipline.

Immediate future tasks:

- 1) To respond to the current request for outlining a detailed ten and twenty year program.
- 2) To establish a more coherent position on the question of the back-contamination of the earth.
- 3) To review currently proposed experimental approaches to exobiology.
- 4) To establish a good working liaison with the NASA Executive.
- 5) To establish effective communication with our colleagues overseas.

Recommendations for additions or modification to the present committee membership. Dr. Hartline will be communicating our general proposals for biology as a whole. For the consideration of exobiology, the Westex group has proved to be a relatively effective arrangement, the regional proximity of its members having made possible a more coherent effort than might otherwise have been the case. We would not discourage the establishment of some additional regional groups along similar lines if points of leadership for them can be established. However, the Westex Committee is in quite close communication with our colleagues throughout the country and there may be no compelling need for other formal groupings provided we have the implicit approval of inviting ad hoc members to sit in on our meetings from time to time as in fact we have done in the past. In addition, Dr. Francis from Ann Arbor has been invited to sit with this committee and Dr. Luria from M.I.T., already a member of Bruno Rossi's committee, will be invited to do likewise. It may be quite appropriate to ask Francis and Luria whether they see a need to establish additional committees under their own leadership.

An organizational problem that will have to be settled in due course concerns the overlapping responsibilities of the Space Science Board and of the NRC-Armed Services Committee on Bioastronautics. Panel II of that committee, under the chairmanship of Dr. Calvin, is likewise devoted to the problem of extraterrestrial life. I believe that the continued functioning of this panel and of the Bioastronautics Committee can be quite useful for its liaison with the Armed Services and Dr. Calvin and Dr. Seeley have already been quite helpful in furnishing such a channel. In addition it is impossible to predict what the future directions of military

missions in space research will be. The mandate of the Bioastronautics Committee seems, quite clearly, to have been to advise the Armed Services primarily with respect to projects that would concern military missions and the support of manned space flight. Provided that the Bioastronautics Committee fulfills that mandate, they can continue to serve a useful and indispensable function which for various reasons, including security, might just as well not be vested in the Space Science Board. A consideration of exobiology is certainly necessary as one of the supports in fulfilling that mandate. I believe that the Board should endorse the continued operation of the Bioastronautics Committee within these explicit terms of reference. I believe also that the Exobiology Committee and Panel II of the Bioastronautics Committee can continue to be of great mutual assistance in fulfilling their respective obligations and that the present de facto interlocking of membership is highly desirable as far as it now goes.

Yours sincerely,

Joshua Lederberg